Histopathologic Diagnosis of Diffuse Placental Chorangiosis in a Patient WHO Presented with Preeclampsia and Inevitable Abortion

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Figure 1: photomicrograph shows placenta tissue with multiple chorionic villi having capillary hyperplasia of >10 capillaries per villi. This was seen in >10 villi and in >3 low power fields. Haematoxylin and eosin stain, x100 magnification.

Figure 2: photomicrograph shows one of the chorionic villi with >10 capillaries. Haematoxylin and eosin stain, x400 magnification.
BACKGROUND
Reported cases of chorangiosis in the literature are few and its etiopathogenesis is not still not completely understood [1]. However, most cases are caused by prolonged placental under-perfusion and chronic hypoxia [1]. Chorangiosis is also referred to as “extreme villous hyper-vascularity”; it is diagnosed by “the presence of more than 10 capillaries in more than 10 terminal chorionic villi in several areas of the placenta”, usually in three or more microscopic high power fields [1]. Cases of chorangiosis are reportedly seen in up to 5–7% of examined placentas from infants admitted to newborn intensive care units for various reasons, with an attendant increase in neonatal morbidity and mortality [1]. One of the well-documented causes of chorangiosis is Preeclampsia [1], which is a known cause of placental hypoxia and hypoperfusion as seen in this index case.

CASE PRESENTATION
A 31-year-old (gravida 4, para 1, 2 alive) woman presented at an expected gestational age of 25 weeks with clinical symptoms and signs consistent with maternal sepsis and preeclampsia with inevitable abortion. She had induction of labour done to deliver the fetus and placenta. At surgical grossing, the placental tissue received measured 14x10x7cm with an attached umbilical cord measuring 21 cm in length. Both weigh 333g. Cut section of the placenta show hemorrhagic and congested surfaces. Microscopic evaluation of placental tissue show features consistent with diffuse chorangiosis and chorioamnionitis.

CONCLUSION
Chorangiosis is a placental lesion due to chronic hypoxia and placental under-perfusion; it usually occurs in maternal intrapartum diseases like preeclampsia and gestational diabetes mellitus. Chorangiosis is an uncommon lesion that has been linked with increased perinatal morbidity and mortality. Therefore, it should be described and reported in the histopathologic evaluation of placental tissue.

REFERENCES